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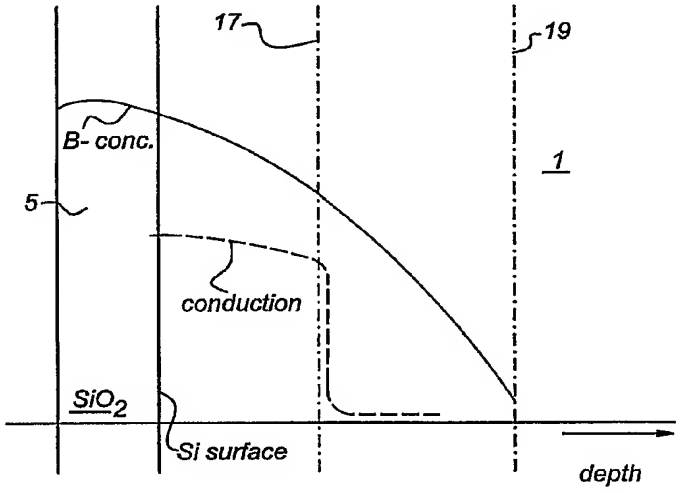
(54) Title: A SEMICONDUCTOR SUBSTRATE WITH SOLID PHASE EPITAXIAL REGROWTH WITH REDUCED DEPTH OF DOPING PROFILE AND METHOD OF PRODUCING SAME



(57) Abstract: Method of producing a semiconductor device, comprising: a) providing a semiconductor substrate, b) providing an insulating layer on a top surface of the semiconductor substrate, c) making an amorphous layer in a top layer of said semiconductor substrate by a suitable implant, d) implanting a dopant into said semiconductor substrate through said insulating layer to provide said amorphous layer with a predetermined doping profile, said implant being performed such that said doping profile has a peak value located within said insulating layer, e) applying a solid phase epitaxial regrowth action to regrow said amorphous layer and activate said dopant.

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